

U.S. Serial No. 10/667,262

Attorney Docket No. 2003P08879US

REMARKS

Claims 1-15 stand rejected as being unpatentable over US Pat. No. 4,607,341 (hereinafter referred to as Monchalin) in view of US Pat. No. 6,236,049 (hereinafter referred to as Thomas). Claim 9 was rejected as lacking antecedent basis for the phrase "the liquid".

Claim 9 has been amended to correct the above-mentioned deficiency, and this basis of rejection should be withdrawn.

Claims 1 and 12 have been amended to emphasize aspects of the present invention, which are not described or suggested by the applied art. More particularly, claim 1, as amended, is directed to a method of acoustic thermography for enhancing detection of a flaw in a specimen. The flaw being of a type characterized by a void defined by mutually opposite, spaced apart surface edges. The method comprises applying a material to a specimen to be tested, the material being thermally responsive to acoustic energy transmitted to the specimen by an acoustic thermography system due to vibratory movement imparted to the material when engaged by the spaced apart surface edges that define the void in the specimen. The movement imparted to the material by the spaced apart surface edges enables to generate a sufficiently intense thermal response notwithstanding that the flaw is of a type characterized by a void defined by spaced apart surface edges. Basis for the foregoing amendment may be found at least at the following excerpts of the published application: page 2, line 8 et. seq. in paragraph 22; page 3, line 11 et. seq. in paragraph 23; page 3, line 1 et. seq. in paragraph 24 and page 3, line 1 et. seq. in paragraph 25. It is respectfully submitted that neither Monchalin nor Thomas describe or suggest the structural and/or operational relationships recited in amended claim 1, and consequently the rejection of claim 1 and the claims depending therefrom should be withdrawn. For example, Monchalin expressly characterizes that an object of his invention is to provide an ultrasonic technique that can be used to determine properties of a material, other than defects. See Monchalin, column 1, line 25 et. seq. This is the antithesis of the present invention. Thomas, on the other hand, describes at column 5, line 13 et. seq., that the ultrasonic

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energy applied to the specimen 12 causes faces of the defects and cracks in the specimen to rub against each other and create heat. Thomas goes on and purports that his system is very good for identifying very small tightly closed cracks and then describes issues associated with cracks that may be open (i.e., voids with spaced apart edges). Applicant respectfully submits that the claimed invention provides a solution to the shortcomings of Thomas and constitutes an evolutionary improvement in the art of acoustic thermography.

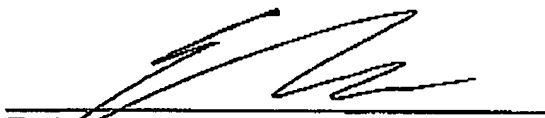
Claim 12 as amended is directed to an acoustic thermography apparatus for enhancing detection of a flaw in a specimen. The flaw being of a type characterized by a void defined by mutually opposite, spaced apart surface edges. As noted above, Monchalin and Thomas, singly or in combination, fail to describe or suggest the structural and/or operational relationships recited in amended claim 12, and consequently the rejection of claim 12 and the claims depending therefrom should be withdrawn.

It is respectfully submitted that each of the claims pending in this application recites patentable subject matter and it is further submitted that such claims comply with all statutory requirements and thus each of such claims should be allowed.

The applicant welcomes the Examiner to call the undersigned attorney if there are any outstanding items that may be resolved via telephone conference.

DATED this 13th day of January, 2006.

Respectfully submitted,



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